applicable to the sensible appearance and to phenomena go, and if one does not search for metaphysical substances, atomism is a fruitful doctrine, although as yet insufficient. To sum up, it may be said that the works of the first Greek philosophers show that they constructed the entire world according to a metaphysical idea. and then going into the domain of sciences and the real, they applied their data just as they were, thus forcing, or better still. neglecting experience. According to Taine this proceeding well responds to the speculative mind of the Greeks; thus, of the naturalism of the School of Ionia which becomes a monodynamism in the problem of life, of the idealism of the Italic School which engenders animism and the hypothesis of harmony and rhythm, of the materialism of the philosophers of the School of Abdera which produced the fruitful conception of a universal mechanic, of all these first systems of Greek philosophy and science we only retain some of their results in recognizing the error of the method, at least in a biological point of view.

THE TYPEWRITER IN CATALOGING AND SHELF-LISTING.*

By CHARLES PERRY FISHER, Librarian of the College of Physicians of Philadelphia.

The following remarks are made as a plea in favor of the general use of the type-writing machine in cataloging. As one of the pioneers in the work (five years) I give with pleasure the results of my labors which will enable you to avoid some of the difficulties and annoyances that I was forced to overcome.

The illustrations which I present for your inspection are not cards especially prepared for the purpose, but cards selected from the cataloging now in progress at the Library of the College of Physicians of Philadelphia, and give a fair example of the varied use of accents, brackets, the insertion of words in the Greek character, etc. They also show the result of several years' labor in obtaining a machine that will write cards in nearly a perfect manner with the minimum of attention. For the sake of comparison, I have one card, in duplicate, written in the style of penmanship taught in library schools.

^{*}Read before the sixth annual meeting of the Association of Medical Librarians, Brooklyn and New York, May 16, 1903.

Speed is a term which it seems hardly appropriate to associate with such deliberate and painstaking work as cataloging, yet, as it is one of the first questions asked by almost every one, catalogers perhaps excepted, I will state at once that I have had four experienced catalogers all totally unfamiliar with a type-writing machine, who were satisfied, after a few weeks' trial, that as much or more work could be accomplished in the same space of time, and with less fatigue.

Accuracy: This can only be assured, whether the work be done by hand or machine, by having the cards examined before they are alphabeted and placed in the drawers. This is just as important as a proof-reader in a printing establishment. Even in a small library where only one person is employed for all duties, if the catalog is to be permanent, someone, other than the cataloger, should be called upon to examine the cards. In the Library of the College of Physicians the books and pamphlets are brought to me, with the cards in them, so that they can be properly revised. For a year or more I have had, in connection with the revision of our catalog, the unusual opportunity of examining, side by side, manuscript and typewritten cards, and I have not, so far, in about twenty thousand cards, found what may be called a vital error, such as the misspelling of an author's name, which would throw the card out of place, and render it not only useless, but endanger the purchase of duplicates, among the typewritten cards. The average, returned for correction, has been about one in seventyfive; the errors were principally omissions of accents, part of brackets, and in some instances a word of the title. The manuscript cards, which represent the work formerly done in our library, when the cards were not examined, give, I am sorry to say, examples of all kinds and conditions of errors even the most serious, and the conclusion drawn from the comparison is in favor of the typewriter.

Results: The best result, including speed, accuracy and uniformity, can readily be obtained by any cataloger who is really interested in the work, and watches the typewriter; changing the ribbon, or other parts when thought necessary, the same as a pen is renewed in hand-writing. The ink used on what are called "record ribbons" is a permanent black; accepted, so I am informed, by the Government at Washington, and I have found no cause for complaint after some quite severe tests.

I will close my remarks with what is perhaps the most important part of the paper, that is to name a machine that will do

202

S. D. GROSS LIBRARY.

Burdett, Henry C. Sr (G) 17 Hospitals and asylums of the world: their origin, history, construction, administration, management and legislation. With plans of the chief medical institutions accurately drawn to a uniform scale, in addition to those of all the hospitals of London in the jubilee year of Queen Victoria's reign. 4 v. roy.8°. Churchill, 1891-93. London/ LEWIS LIBRARY. Carstens, J[oh.] G[odofredus] **4**G v.19. (L) Nisc. De sunsipia rationali medica. Inaugural dissertation. Halae Magd. Henckelii, 1709. 40 pp. 4°.

Facsimile reproduction of card catalog work done on the Hammond typewriter, showing insertion of Greek word, etc.

the work required. After a careful investigation, renewed from time to time, of the high grade machines on the market, both in New York and Philadelphia, I find there is but one which can be considered as practical for use in card cataloging; by this statement I mean a machine that will produce such work as I have shown you, and that will answer the unusual requirements called for in cataloging. The machine I allude to is called the "Hammond Typewriter," and has the following advantages which I feel sure you will agree with me make it especially adaptable for card indexing:

1. The cards can be dropped in straight, and after the basket which holds them is adjusted so as to bring the head line in the desired position (which is but a moment's work), any number of cards can be written with the knowledge that after they are alphabeted and placed in the drawers the result will be uniform.

2. The stroke of the hammer is automatic, therefore, there is no shading from a variation of touch in operating.

3. Perfect alignment. This is absolute from the construction of the machine and the engraving of the characters upon a shuttle. The annoyance of adjustment necessary with any "type-bar" machine is eliminated.

4. Number of characters, ninety. The fact that each character is separate is of great importance, as, with the "Back-space," the various accents can be used over any letter that the language copied may demand.

5. Interchangeability of shuttles. This permits the insertion of Greek, Russian or other words in character without removing the card from the machine.

If the subject of this paper was taken up by libraries in general, and a market made for a special catalog type-writing machine, I feel confident that it would not be long before the wellknown inventive genius of our countrymen would produce the article desired.

KEEPING TRACK OF "WANTS" AND "DUPLICATES."*

By THOMAS G. LEE, M.D., Librarian of the Medical Department, University of Minnesota, Minneapolis, Minn.

I venture to call attention to the cards herewith presented as an aid in keeping track of "wants" and "duplicates," and particularly for the purpose of sending out to other libraries with view of exchange, etc. The cards are of the regulation size, are cheap,

^{*}Read before the sixth annual meeting of the Association of Medical Librarians, Brooklyn and New York, May 16, 1903.